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Siemens Corporation
Intellectual Property Department
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EXAMINER
ELAHEE, MD S

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE __3__ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *21 July 2009*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *12-25 and 27-33* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *12-25 and 27-33* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   This action is responsive to an amendment filed on 07/21/2009. Claims 12-25 and 27-33

are pending. Claims 1-11 have been previously cancelled. Claim 26 has been currently cancelled.

Claims 32 and 33 have been newly added.

Response to Arguments

2.   Applicant's arguments in the 07/21/2009 Remarks have been fully considered but they

are not persuasive because of the following:

        Regarding claim 12, the applicant argues on pages 13-17 that McCormack et al. do not

teach, show or otherwise disclose a PBX that includes digital sound sequences stored on working

memory of the PBX or a switch device configured to transmit the digital sound sequences stored

on the working memory of a PBX's CPU while the connection request of one or more

communication terminals is being held. Examiner respectfully disagrees with this argument. It is

because, the applicant did not claim limitation. In paragraphs 0076, 0078, McCormack music or

video [i.e., digital sound sequences] stored on PC/connected device/ built-in MOH server [i.e.,

working memory] of the PBX or a switch device configured to transmit the digital sound

sequences stored on the working memory of a PBX's CPU while the connection request of one or

more communication terminals is being held.

Thus, the rejection of the claim will remain. The rejection of the claims 29 and 30 will

remain for the same reasons as discussed above with respect to claim 12.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
> in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
> patent by another filed in the United States before the invention by the applicant for patent, except that an
> international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
> subsection of an application filed in the United States only if the international application designated the United
> States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 12, 13, 24, 27-30, 32 and 33 are rejected under 35 U.S.C. 102(e) as being

anticipated by McCormack et al. (U.S. Pub. No. 2002/0136384).

Regarding claims 12, 29 and 30, with respect to Figures 1-5, McCormack teaches a

method for handling digital sound sequences in a telecommunications system having a PBX

comprised of a CPU, a working memory that is connected to the CPU, and a switch device

connected to the CPU, the method comprising:

storing digital sound sequences on the working memory of the PBX (page 4, paragraph

0076);

McCormack further connecting a plurality of telecommunication terminals to the PBX

(fig.2,5);

McCormack further teaches holding a connection request from at least one telecommunication terminal requesting a connection to another communication terminal (page 3, paragraph 0059, page 4, paragraphs 0069-0071, 0076, 0078);

McCormack further teaches the CPU of the PBX accessing the working memory of the CPU (page 4, paragraph 0076); and

McCormack further teaches that the switch device of the PBX transmitting the digital sound sequences from the working memory to the at least one telecommunication terminal while the connection request of the at least one telecommunication terminal is being held (page 3, paragraph 0059, page 4, paragraphs 0069-0071, 0076, 0078).

Regarding claim 13, McCormack, as applied to claim 12, teaches that the CPU performs a data transfer of the stored digital sound sequences between the working memory and switching network and the working memory and the switch device for the switch device to transmit the digital sound sequences to the at least one telecommunication terminal while the connection request of the at least one telecommunication terminal is being held, the switch device being comprised of at least one switch or at least one PCM switch (page 1, paragraph 0002, page 3, paragraphs 0059, 0061, page 4, paragraphs 0069-0071, 0073, 0076, 0078).

Regarding claim 24, McCormack, as applied to claim 12, teaches that digitizing sound sequences and storing the digitized sound sequences in the working memory by at least one component of the telecommunications system (page 3, paragraph 0059, page 4, paragraphs 0069-0071, 0076, 0078).

Regarding claim 27, McCormack, as applied to claim 12, teaches that the digital sound

sequences are Music on Hold, voice sequences, or signal tones (page 3, paragraph 0059, page 4,

paragraphs 0069-0071, 0076, 0078).

Regarding claim 28, McCormack, as applied to claim 12, teaches program code and/or

data of telecommunications subscribers being stored in the working memory (fig.7,8; page 3,

paragraph 0059, page 4, paragraphs 0069-0071, 0076, 0078).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

    1.   Determining the scope and contents of the prior art.
    2.   Ascertaining the differences between the prior art and the claims at issue.
    3.   Resolving the level of ordinary skill in the pertinent art.
    4.   Considering objective evidence present in the application indicating obviousness
        or nonobviousness.

7.   This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8.   Claims 14-23, 25, 26 and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCormack et al. in view of Moran (U.S. Patent No. 4,370,743).

        Regarding claims 14, 15 and 32, McCormack, as applied to claims 12, 13 and 30, teaches that data is transferred serially in packets between the PBX and the telecommunication terminal being held (fig.5; page 3, paragraphs 0059, 0061-0062, page 4, paragraphs 0069-0071, 0073, 0076, 0078).

        However, McCormack does not specifically teach CPU connected to a time slot assigner (TSA) such that the TSA is configured to assign the digital sound sequences to programmed timeslots. Moran teaches CPU connected to a time slot assigner (TSA) such that the TSA is configured to assign the digital sound sequences to programmed timeslots (col.6, lines 1-22). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify McCormack to incorporate the feature of a time slot assigner (TSA), connected

to CPU, configured to assign the digital sound sequences to programmed timeslots in McCormack's invention as taught by Moran. The motivation for the modification is to do so in order to provide sound within a particular time.

Regarding claims 16 and 17, McCormack, as applied to claims 14 and 15, teaches supporting a packet-by-packet data transfer of the digital sound sequences (page 3, paragraphs 0059, 0061-0062, page 4, paragraphs 0069-0071, 0073, 0076, 0078).

However, McCormack does not specifically teach that the TSA is comprised of a FIFO shift register. Moran teaches that the TSA is comprised of a FIFO shift register (ccol.5, lines 31-51, col.6, lines 1-22, col.8, line 61-col.9, line 18). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify McCormack to incorporate the feature of the TSA comprising a FIFO shift register in McCormack's invention as taught by Moran. The motivation for the modification is to do so in order to provide a better service to a call.

Regarding claims 18 and 20, McCormack, as applied to claims 12 and 13, teaches the CPU to perform the transfer of the digital sound sequences (page 3, paragraphs 0059, 0061-0062, page 4, paragraphs 0069-0071, 0073, 0076, 0078).

However, McCormack does not specifically teach a microcontroller connected to the CPU such that the microcontroller is initialized by the CPU to perform a transfer. Moran teaches a microcontroller connected to the CPU such that the microcontroller is initialized by the CPU to perform a transfer (fig.1; col.5, lines 18-30). Thus, it would have been obvious to one of ordinary

skill in the art at the time the invention was made to modify McCormack to incorporate the

feature of a microcontroller connected to the CPU such that the microcontroller is initialized by

the CPU to perform a transfer in McCormack's invention as taught by Moran. The motivation for

the modification is to do so in order to provide fast processing service by a CPU.

Regarding claim 19, McCormack in view of Moran, as applied to claim 18, does not

specifically teach that the microcontroller is a Direct Memory Access (DMA) controller.

Examiner notes that the microcontroller as a Direct Memory Access (DMA) controller is well

known in the art. Thus, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to modify McCormack in view of Moran to incorporate the feature of the

microcontroller as a Direct Memory Access (DMA) controller in McCormack's invention in

view of Moran's invention in order to provide quick data retrieval control from a memory.

Regarding claim 21, McCormack, as applied to claim 21, teaches that the CPU requests

the microcontroller to set the start address of the digital sound sequences in the working memory

in order to play back the digital sound sequences (page 3, paragraphs 0059, 0061-0062, page 4,

paragraphs 0069-0071, 0073, 0076, 0078).

However, McCormack does not specifically teach that the CPU requests the

microcontroller to set the start address of the digital sound sequences in the working memory and

to set the destination address in the FIFO shift register of the TSA. Moran teaches that the CPU

requests the microcontroller to set the start address of the digital sound sequences in the working

memory and to set the destination address in the FIFO shift register of the TSA (fig.1; col.5, lines

31-68). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify McCormack to incorporate the feature of the CPU requesting the microcontroller to set the start address of the digital sound sequences in the working memory and to set the destination address in the FIFO shift register of the TSA in McCormack's invention as taught by Moran. The motivation for the modification is to do so in order to properly play back sound/audio message to a user.

Claims 22, 23 and 33 are rejected for the same reasons as discussed above with respect to claims 14, 16 and 21. Furthermore, McCormack, as applied to claims 18 and 21, teaches the CPU requests to set the destination address in the working memory for recording sound sequences (page 3, paragraphs 0059, 0061-0062, page 4, paragraphs 0069-0071, 0073, 0076, 0078).

Regarding claim 25, McCormack, as applied to claim 12, does not specifically teach that at a predefined filling level of the FIFO shift register, the TSA is configured to transmit an interrupt command the CPU to start or to stop a new data transfer. Moran teaches that at a predefined filling level of the FIFO shift register, the TSA is configured to transmit an interrupt command the CPU to start or to stop a new data transfer (fig.1; col.5, lines 31-68). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify McCormack to incorporate the feature of the time slot assigner (TSA) commanding the CPU by an interrupt command to start or to stop a new data transfer at a predefined filling level

of the FIFO shift register in McCormack's invention as taught by Moran. The motivation for the

modification is to do so in order to stop recording data in memory when the memory is full.

Claim 31 is rejected for the same reasons as discussed above with respect to claims 14

and 16.

Conclusion

9.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

10.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to MD S. ELAHEE whose telephone number is (571)272-7536.

The examiner can normally be reached on MON-FRI.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, FAN TSANG can be reached on (571)272-7547. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Art Unit 2614
November 24, 2009